



FROM THE DESK OF THE
JBDA TEST DIRECTOR
COLONEL JAMES G. DIEHL,
US ARMY

IN THE SADDLE

I have been with Joint Battle Damage Assessment (JBDA) Joint Test and Evaluation (JT&E) just over six months now. With so many events taking place and so many projects being worked, the time has gone by very quickly. We are still located in our facility near the US Joint Forces Command in Suffolk, Virginia, but we will move to a new nearby facility early this summer. The plans for the move are in place, and we anticipate a very smooth transition.

This is an exciting yet very busy time for us. We have had three simultaneous major efforts ongoing since the last issue of *Ground Truth* was published in November 2001. These efforts include collecting and analyzing battle damage assessment (BDA) data for Operation ENDURING FREEDOM (OEF), preparing the JBDA program test plan, and planning for major data collection in Korea using Ulchi Focus Lens (UFL) as the test venue.

As part of our planning effort, several members of the JBDA team, including myself, traveled to Korea in February of this year. This trip to Korea, my first, was an excellent opportunity for me to get a first-hand overview of the UFL exercise and some of the actual work areas. I also had the chance to introduce myself as the JBDA Test Director and meet a number of the people who are integral to the JBDA



Joe Kaedle / Pool

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improvement effort. Making contact with those in authority was another important goal, as such liaison will be beneficial in ensuring future trips to Korea are well coordinated.

In addition, we are in the process of closing down our Joint Warfighters JT&E and transitioning key folks over to JBDA. Based on my observations of the way JBDA is shaping up, I am confident we will achieve the same success as we have with JWF.

As mentioned in the last newsletter, we implemented the JBDA contingency test plan just after the start of OEF. We collected data at both the US Central Command and the National Military Joint Intelligence Center. Over the past several months, we analyzed that data, and we will have a written report prepared by next month. We are also hosting a BDA enhancement working group in Tampa, FL on 9-10 April 2002 and hope to propose some changes for improvement to the JBDA process at that time. We have received great support from the BDA community for our efforts in Tampa, and I appreciate everyone's assistance.

We have finished writing the JBDA program test plan and submitted it to the Office of the Secretary of Defense for review. Once all of those review comments have been received, validated, and incorporated, the program test plan will be finalized. Upon completion of the program test plan, we will publish the JBDA detailed test plan, which is currently being developed. We will then implement the detailed test plan in Korea during UFL.

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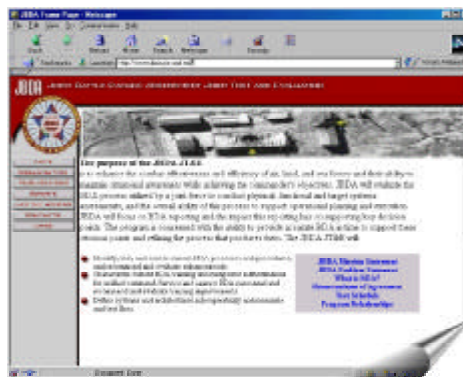
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THE MISSION OF JBDA

JBDA is chartered to employ multi-Service and other Department of Defense agency support, personnel, and equipment to investigate, evaluate, and improve BDA for the joint force commander to facilitate operational decision-making. JBDA will accomplish this mission by:

- Identifying, testing, and assessing current BDA processes and procedures, and recommending and evaluating enhancements
- Characterizing current BDA training and manpower authorizations for unified command, Service, and agency BDA personnel, and recommending and evaluating training improvements
- Defining system and architecture interoperability, and nominating and testing solutions (enhancements)



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www.jbda.jte.osd.smil.mil

For more information about JBDA, visit our website at www.jbda.jte.osd.mil (or through the SECRET Internet Protocol Router Network at www.jbda.jte.osd.smil.mil).

2nd ANNUAL BDA SYMPOSIUM

The JBDA JT&E will be hosting the 2nd Annual BDA Symposium 19-20 June 2002 in Suffolk, Virginia. Topics of discussion will include current issues, problems, and initiatives within the BDA community, as well as future plans and enhancements. JBDA will also highlight the findings and results of observation and analysis of BDA from Operation ENDURING FREEDOM. Attendance is once again anticipated from the Unified Commands, national agencies, a number of tactical units specializing in BDA, and several current Department of Defense initiatives aimed at improving BDA.



For more information, please visit the JBDA website, which will continue to be updated as additional information becomes available.

From Operation ENDURING FREEDOM to Exercise Ulchi Focus Lens

The Way Ahead

JBDA continues to drive forward with formal analysis of data collected on the BDA processes from Operation ENDURING FREEDOM (OEF). Data collection was ceased on 21 November 2001. JBDA embarked on the first phase of analysis, including data validation and organization, data element identification and extraction, trial definition and limited reconstruction, and limited computation of measures. An In-Progress Review (IPR) was conducted in January 2002, with US Central Command (USCENTCOM) discussing initial results and trends, as well as the road ahead. The IPR provided valuable guidance with respect to

USCENTCOM's specific areas of interest and the planned and desired enhancements. As of this newsletter going to press, JBDA's OEF Report covering October through November 2001 was complete and being submitted for release approval to the Deputy Director, Developmental Test and Evaluation, Office of the Under Secretary of Defense for Acquisition and Technology.

As a result of OEF, JBDA has been afforded the opportunity to execute a major test event much earlier than planned. JBDA has been able to test and validate numerous test concepts and to develop and field many data

Specifically, JBDA has tested and validated the data analysis team organization, BDA trial definition, individual data element definitions, and both Access and Oracle database designs. Additionally, JBDA has been able to exercise, evaluate, and improve techniques and procedures for manual and automated data collection; data classification, validation, and organization; manual and automated database population and validation; BDA trial reconstruction; and both quick look and detailed analysis methods.

Due to the opportunities presented by OEF, the outstanding cooperation of USCENTCOM, and the extra effort put forth by the individual members of the JBDA team, the program has been and will continue to be able to provide valuable and timely feedback to the warfighters and is very well prepared going into the next phase of the test.



collection and analytical tools that would otherwise have not been possible until Exercise Ulchi Focus Lens 02.

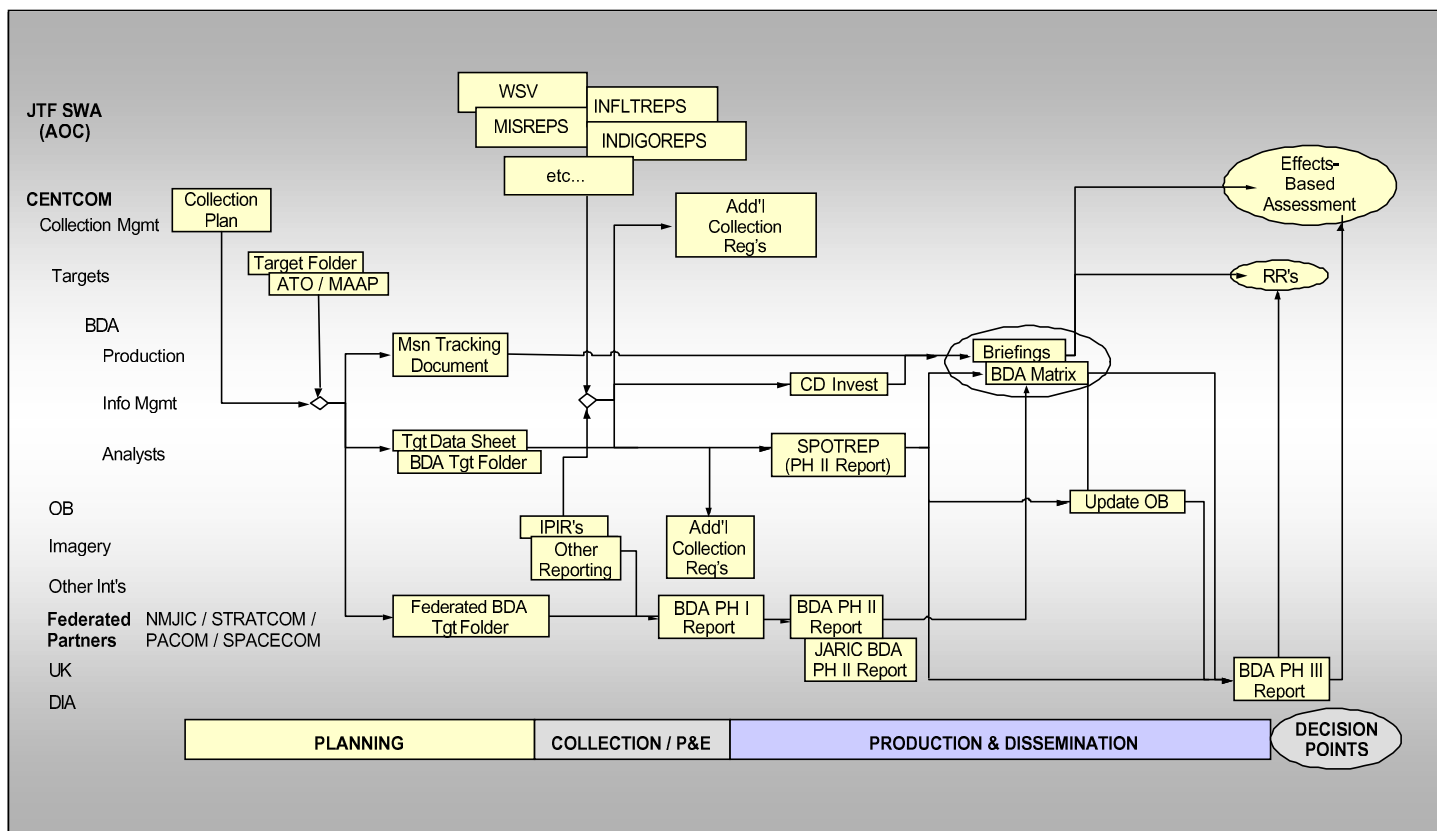
Process Description or “Tell them how the game is played”

In most test efforts, analysis usually turns to defining the actual environment and the actual work accomplishment process soon after the problem has been defined and the test and analysis concepts have been nailed down. The JT&E analyst must describe how testable functions are performed,

to himself or herself and later to various reviewing audiences, including non-specialists. Analysts must define functions so measures can be applied properly and analysis results can be trusted. The functional description may be in words, in formulae, or in graphics. This is where the analyst "tells them

how the game is played."

JBDA's Mr. Jeff McNeil created a graphic, entitled USCENTCOM's Pre-War Battle Damage Assessment Process, to illustrate USCENTCOM's BDA process prior to the counter al-Qaeda fight in Afghanistan,



USCENTCOM's Pre-War Battle Damage Assessment Process

Operation ENDURING FREEDOM (OEF).

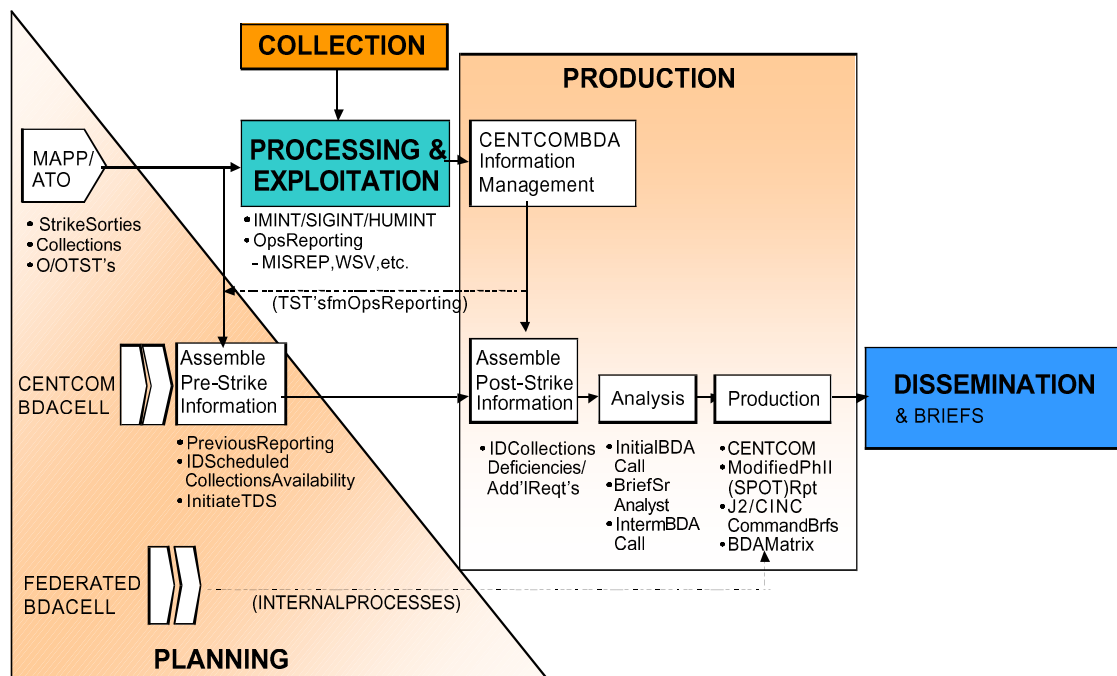
Rapid audience comprehension requires messages that are familiar on first read or first sight. If not, comprehension is delayed or not achieved at all.

When the above figure, USCENTCOM's Pre-War Battle Damage Assessment Process, is viewed, does the title establish instant context setting? If not, predictably, a struggle would ensue to first define "USCENTCOM," then "BDA." After that, the eye addresses the three major components of the graphic: the organization names along the left vertical, the BDA functions horizontally along the bottom, and the network of input sources, value-added workflow, and

output products, all located in the center of the figure.

This chart is best used as an early aid for the analyst. Its dual value is to establish an expectation of behavior to aid collectors and later to compare the

base network to the observed process constructed from data collected during OEF. However, its organizational index only approximately aligns with the center process. Likewise, alignment is only approximate with the BDA cycle phases along the bottom of the



CENTCOM Observed Process

chart. Moreover, the BDA cycle phases are grouped into three instead of five segments. Decision points (DPs) should be the sixth segment.

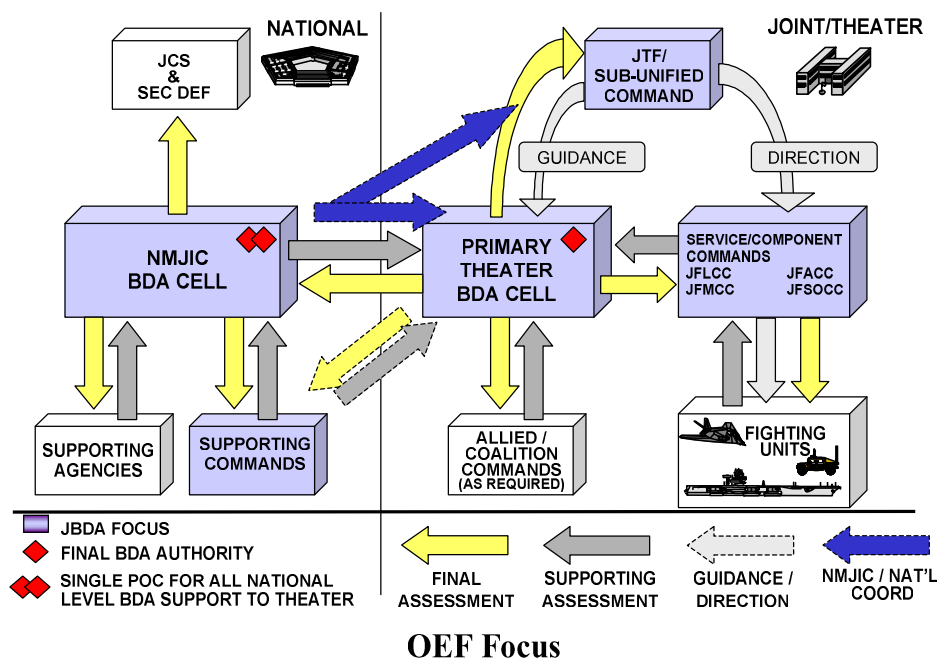
In addition to the initiation, development, and finalization of the analysis, analysts must also present the analytical results to different audiences. Look at another of Mr. McNeil's graphics, CENTCOM Observed Process, which describes a portion of the process observed by JBDA. This depicts

appears visually unbalanced and is not quickly comprehended. This chart was actually used as an early update to JBDA supervision and interested external specialists.

As the First Look Report took shape, non-BDA specialists required a more complete chart, which was still easily understood. Mr. McNeil worked again to make the complex simple and informative. The next chart, OEF Focus, shows the coordination, guidance,

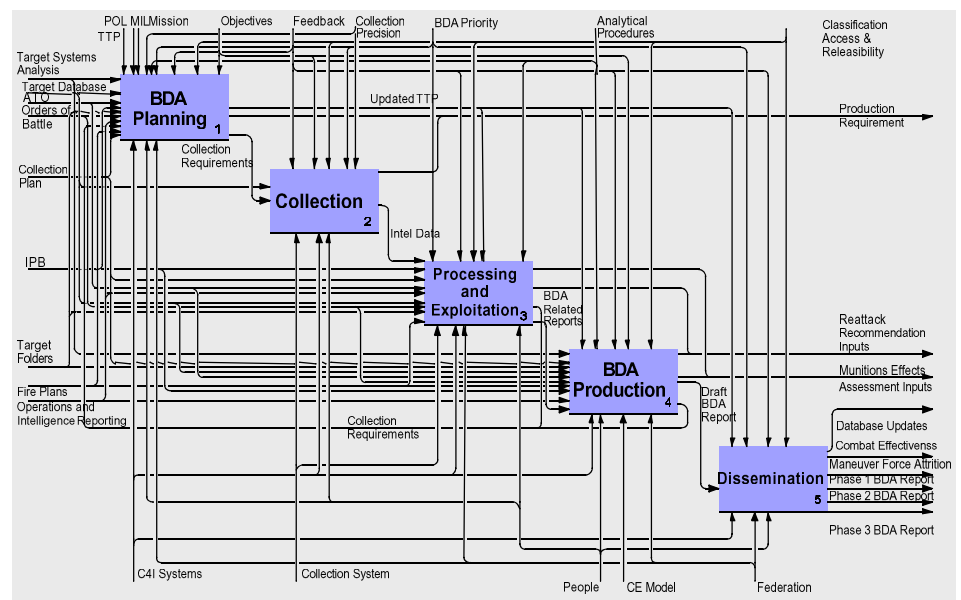
supporting assessment, and final assessment processes very clearly. The chart is even more attractive to the eye in terms of composition and use of color. More national context is depicted. The chart was included in a report to the customer and to interested parties. It was designed to put the customer's senior leadership within a familiar context, yet provide a significant amount of information. Now, when the observer looks at the graphic, it prompts an admiring: "I do believe he's got it!" This chart was clearly of general officer presentation quality.

Now, when the observer looks at the graphic, it prompts an admiring: "I do believe he's got it!"



USCENTCOM's BDA process, within three weeks of initiating offensive operations in Afghanistan, as seen by JBDA data collectors. As with the pre-war process chart, this depiction uses the BDA cycle phases to block the commentary. This graphic also uses color. Key inputs are shown and some sub-process functions within a cycle phase are summarized. Work process terms are chosen to be readily understood by non-BDA specialists. The planned audience of this chart was not JBDA analysts or BDA specialists; therefore, this is not a detailed chart. The sub-process functions are not uniformly spelled out for all BDA cycle phases, many supporting organizations are omitted, and several intermediate products are not named. This graphic

The purpose of the chart, Updated IDEF 0 of USCENCOM BDA Process, is not to put senior leadership immediately at ease. Rather, it is for JBDA to report detailed findings to other (Continued on page 7)



General Officer Steering Committee Perspective from the Warfighter

JBDA held the first meeting of its General Officer Steering Committee (GOSC) on 5 February 2002 at the Institute for Defense Analysis in Alexandria, Virginia. Representatives from US European Command J25; Naval Warfare Development Command; Marine Corps Intelligence Activity; the Office of the Secretary of Defense (OSD) Command, Control, Communications, and Intelligence (C3I); Joint Chiefs of Staff J2T; Air Force Director of Intelligence, Surveillance, and Reconnaissance; JT&E Program Office; and JBDA's assigned Federally

Funded Research and Development Center representative were present.

The objectives of the meeting were to brief the membership on the details of the JBDA GOSC charter and to provide an overview of JBDA's test concept with emphasis on current efforts in support of Operation ENDURING FREEDOM (OEF) and plans for Exercise Ulchi Focus Lens. All representatives actively participated and contributed to the briefings presented, and the resultant dialogue shed new light on a number of areas. All issues presented were well received, most notably JBDA's work with OEF. Participants acknowledged the value of observing and analyzing real-world operations and encouraged continued focus in that area should additional opportunities arise. JBDA also addressed GOSC members' concerns regarding inclusion of Federated BDA in the OEF report. JBDA reiterated the increasing importance of Federated operations and assured members the contributions

of the Federated Partners would be included in the OEF report.

Consensuses expressed prior to adjourning:

- a. This was an extremely positive and beneficial meeting.
- b. Future GOSC meetings should be convened on a more frequent basis (currently annually).
- c. Test results should be provided to the warfighter as soon as possible.
- d. Observation and analysis of future real-world operations should be an absolute priority.

JBDA expressed its appreciation for the time and contributions of all participants at the GOSC meeting. The next GOSC meeting is currently planned for Fall 2002.

ULCHI FOCUS LENS 02

August 2002 will find JBDA conducting its first full exercise test. Ulchi Focus Lens (UFL) is an annual Korean theater command post exercise that trains personnel in implementing plans for the defense of the Republic of Korea (ROK). Our data collectors will be positioned throughout Korea during this year's exercise, establishing a baseline from which to evaluate future efforts.

JBDA has been working closely with United States Forces Korea (USFK) personnel to ensure a smooth collection effort. From the Initial Planning Conference (November 2001), to the Mid Planning Conference (February 2002), to the Final Planning Conference (May 2002), and the Load Test (June 2002), JBDA will have traveled many miles and coordinated efforts with

many organizations. Thanks to the cooperation and support of USFK, JBDA is confident this initial collection will be successful.

Once the UFL 02 collection is complete, analysts will sift through the data and identify potential enhancements to the BDA process. Enhancements might include new tactics, techniques, and procedures (TTPs); improvements to command, control, communication, computers, and intelligence (C4I) capabilities; BDA analyst and senior leader training; and more effective personnel management. Emphasis will be placed on leveraging ongoing efforts.

Once these enhancements have been identified, they will be presented to the theater. Approved enhancements will be incorporated into existing BDA

processes. JBDA will assist in training those affected by the changes. Once complete, JBDA will continue coordinating through the various conferences in preparation for UFL 03.

During UFL 03, JBDA will collect data on processes that have implemented enhancements to joint BDA. JBDA will then compare that data with data collected previous to changes in the process. From this, a determination can be made as to the effectiveness of the enhancements.

UFL provides JBDA with a robust, annual venue encompassing the criteria required for conducting a scientifically rigorous test and evaluation. The USFK/JBDA partnership will improve BDA processes and enable senior leadership to make more timely and accurate battlefield decisions.

WHO'S WHO

Major David Courchene

Chief, Data Management and Analysis Division

Major David Courchene joins JBDA from his previous assignment at United States Special Operations Command as Chief of Emerging Issues Branch of the Joint Intelligence Center. Major Courchene is a qualified United States Air Force Combat Targets Officer. He served in that capacity for Twelfth Air Force and while assigned as Chief of Targets in Saudi Arabia supporting Operation DESERT FOX, and he served as Commander of Readiness for Twelfth Air Force. Major Courchene also served in a series of positions at Plattsburgh Air Force Base, New York, in the command and control field. Major Courchene is a graduate of the United States Air Force Academy, and holds a Master of Science in Management from Troy State University. He is also a graduate of Squadron Officer School, Air Command and Staff College, Armed Forces Staff College, and Combat Targets School.



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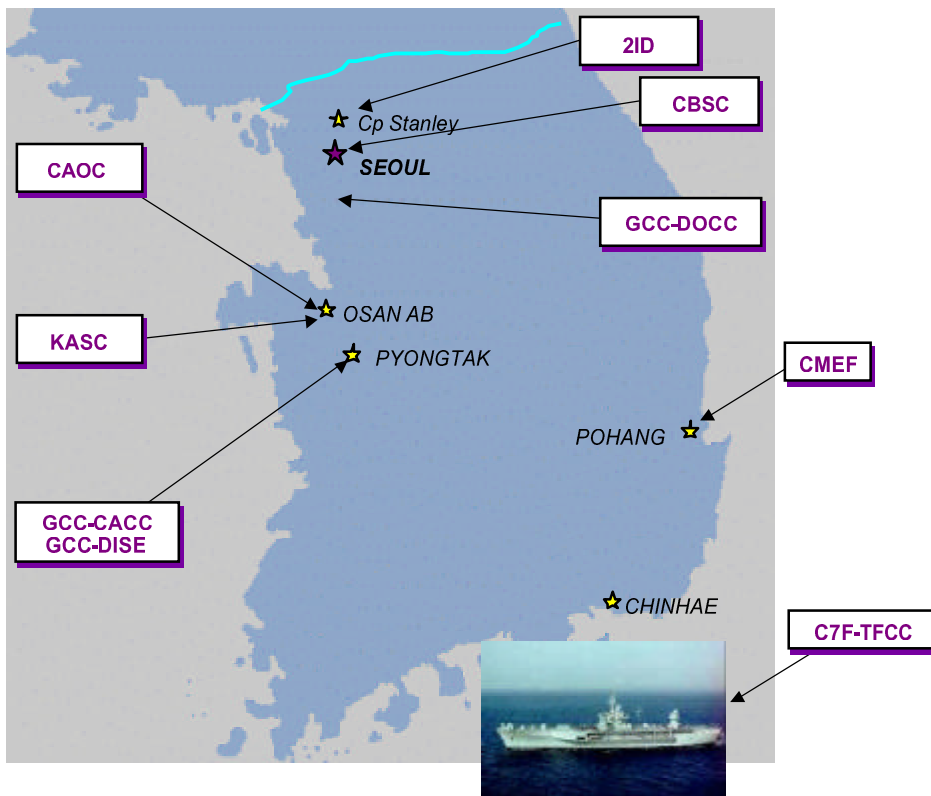
analysts, planners, BDA specialists, and sub-process function supervisors. It demands extensive knowledge of the BDA context. The chart is not designed to be immediately understood by everyone. Instead, it must be studied and used for narrow and arcane purposes. Mr. Scott Repeta prepared

the original version, prior to al-Qaeda's attack on the World Trade Center Towers on 11 September 2001, and it was revised in January 2002 by our communicatively adept analyst, Mr. McNeil.

IDEF 0 is an acronym for **I**ntegrated **C**omputer-Aided Manufacturing **DEF**-

inition Method. The 0 indicates function modeling. The Department of Defense endorsed this methodology in the early 1980s. JBDA's use of IDEF 0 is based upon the successful employment of the tool by Joint Warfighter's JT&E. This depiction from USCENCOM's perspective has detailed *Input* and *Output* horizontally arrayed by function, with supporting *Controls* entering each function block from the top and *Mechanisms* (or supporting systems) entering the function block from below. This chart provides the greatest of detail of all the charts discussed. It becomes a solid stepping stone to applying measures of *timeliness*, *accuracy*, and *completeness* demanded by JBDA's analytical concept.

Analysts must stay rooted, both in the purpose of any functional description they prepare and to ensure that the description is appropriate to the audience to whom it is presented. In short, analysts must "tell them how the game is played."



Joint Battle Damage Assessment **GROUND TRUTH**

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